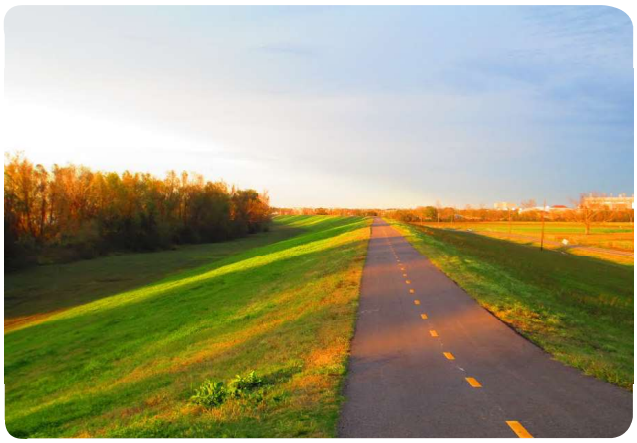
Transportation



Mississippi River Levee Path

I-110 at Night

Introduction: **The Vision for Transportation in East Baton Rouge Parish**

The FUTUREBR Comprehensive Plan envisions a holistic pattern of development that responds to the needs and desires of citizens, seizes opportunities for economically and environmentally sustainable growth, and continues progress toward our goals.

The FUTUREBR Vision calls for a shift in how land use, transportation priorities and decisions are made in the East Baton Rouge region. The region is congested, and conditions are projected to worsen in the next 20 years if the current approach to land use and transportation does not change. The Parish will require substantial new investments in roads and streets. However, these investments alone will not provide East Baton Rouge Parish with a modern transportation system. Investments in transit and walking and biking infrastructure will be needed. In addition, coordinating land use and transportation can be one of the most powerful and cost effective tools available to the Parish.

Reducing travel distances can be accomplished by shifting land use patterns to bring homes, jobs, shops, services and educational facilities together in a more accessible environment. Enhancing connectivity and embracing new modes of transportation that connect these walkable centers to the surrounding neighborhoods, city, parish and region are also instrumental in achieving the FUTUREBR Vision. This shift in policy has strongly resonated throughout the public input provided during the FUTUREBR planning process.

Core Values and Aspirations of the Vision

A diverse group of residents and stakeholders representing all parts of East Baton Rouge Parish provided input through workshops, open houses, interviews, focus groups and survey discussions. Respondents consistently cited the following core values and aspirations they believed should be the foundation for building a vision for East Baton Rouge Parish.

Core values that relate to transportation:

Strong neighborhoods and communities: Neighborhoods in all areas of the City-Parish are desirable places to live and have a range of housing types and nearby amenities to serve residents.

Convenient transportation: There is a variety of choices for moving both people and goods, as well as improving existing ways to move throughout the Parish.

Healthy environment: Natural resources are protected and conserved to provide active and passive recreational opportunities that promote improved health for current and future residents.

Sustainability: The future reflects the creativity and resiliency of East Baton Rouge Parish's young residents, with a focus on fiscal, physical, environmental, economic and equitable sustainability.

Introduction

In coordination with this overall vision, our transportation system must meet the needs of all of the residents, whether they choose to locate in the City's core or the outlying suburbs, and contribute to a desirable quality of life. The intention of this system is to ensure a sustainable network by way of connectivity, efficiency, and flexibility that supports Baton Rouge's livability, sustainability and overall economic development. As the community of Baton Rouge continues to grow, diverse transportation options and street designs allow for increased efficiency of movement in and around the greater metropolitan area.

Flexible street designs consider an array of transportation options —bus, train and bike — that support all sectors of the community. Enhanced street design, pedestrian oriented streetscapes, green space, and a well defined urban context increase not only the walk-ability and bike-ability of the community, but work to enhance the overall character of the community. It is through the implementation of these elements, and others recommended in FUTUREBR, that Baton Rouge will achieve the vision of this plan.

This vision is consistent with the State of Louisiana transportation guidelines which promote a more comprehensive and integrated transportation network that provides safe and diverse multi-modal transportation options to all Louisianans regardless of "geographic location, physical condition, economic status or service requirements." The State promotes Complete Streets as a multi-modal design standard which encourages the use of bicycle, pedestrian and transit infrastructure in a safe, unified network for both on- and off-street traffic, including but not limited to: sidewalks, bikeways, trails, and transit. However, specific design standards do not currently exist for the State, allowing communities to develop and implement their own standards that best fit the local context.

Challenges and Opportunities

Those who live, work or travel in East Baton Rouge Parish know that the region has severe transportation problems. Roads are clogged and the transit system is inadequate, making it difficult and time consuming to travel around the region and locally. According to Texas A&M Transportation Institute's Annual Urban Mobility Report of 2014, Baton Rouge is currently ranked third in interstate congestion among mid-sized cities in the United States; this did not happen overnight.

Mobility issues primarily arise from three realities. First, the City-Parish has a vibrant, growing economy. Second, there was no significant transportation planning during the critical growth phase of the region, the 1970s, when Baton Rouge was transitioning from a small town to an urbanized area. And sigificiantly, most of the population growth in the last 40 to 50 years has occurred away from the core of the region.

Progress has occurred on two fronts in Baton Rouge – the City-Parish funded a series of significant road improvements through a bond issue, known as the Green Light Plan, and the State began widening two of the interstate routes vital to commuters in the region. Even with these efforts, projections show congestion will continue to worsen without a fundamental change in how the City-Parish plans and invests in the transportation system.

Mississippi River Levee Path - Downtown at Sunset

TRANSPORTATION

Introduction

Downtown Sidewalk - 3rd Street

Capitol Park Trolley

To successfully solve traffic, mobility, and transportation equity issues, it is clear that several strategies must be employed:

- Integrate land use and transportation facilities by incorporating a "Complete Streets" approach for future transportation improvements
- Prioritize and fund strategic congestion relief road projects
- Strengthen and enforce connectivity requirements for new development
- Fund public transit to service the riders of need while attracting the riders of choice
- Improve biking and walking opportunities

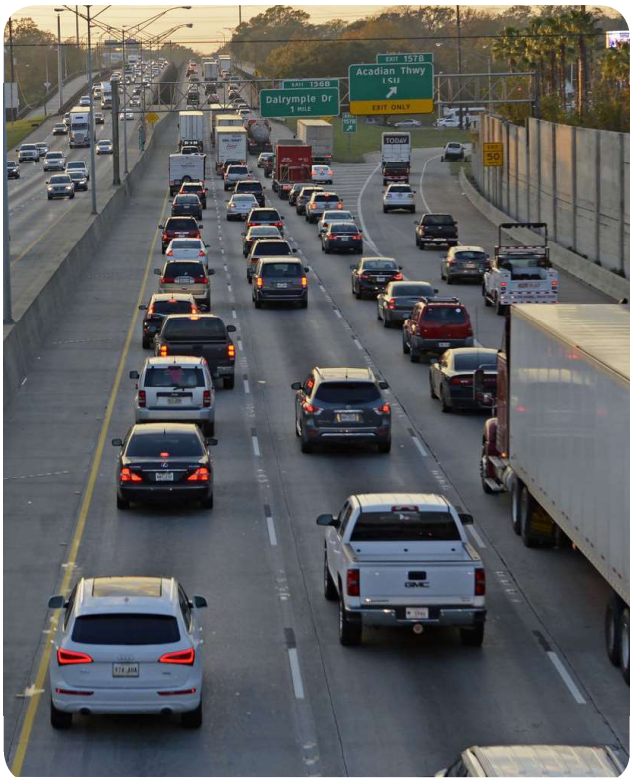
All of the above actions will be ineffective if we are not successful in encouraging growth patterns that shorten commutes. It is not possible to build enough roads or supply enough public transit to sustain the current growth patterns. Combining land use planning with strategic transportation investment utilizing the latest technologies for operations is the key to the future of the Parish.

This element lays out the background data collection and analysis that was completed throughout the FUTUREBR comprehensive planning process, describes the type of modern transportation system that will help deliver the City-Parish's long term vision, and lays out a series of policies, tools and strategies for building that system.

Part 1: **Transportation Today**

The current pattern of infrastructure development throughout the parish has led to a localized series of transportation facilities that have little relation to one another in how they were planned or how they function. This has resulted in a system where transportation planning decisions are made that consider only one mode of transportation, thereby pitting the movement of vehicles against pedestrians, bicyclists and transit. FUTUREBR's transportation vision encourages the development of a multi-modal system that recognizes the need for additional roadway facilities while also realizing that the needs of transit users and pedestrians must be met and that mode choice can help offset some of the vehicular congestion issues throughout the Parish.

Baton Rouge Traffic Congestion



Baton Rouge Traffic Congestion

Current Lack of Transportation Options

One of the most visible symptoms of not having a unified transportation plan for East Baton Rouge Parish is the lack of available transportation options. Without working toward a common vision, the automobile becomes the easiest mode of transportation to provide service. In 2008, the City-Parish Department of Public Works (DPW) performed an audit of its streets and found that there were 2,376 miles of roadway in the Parish with only 944 miles (40%) of roadway that included sidewalks. Inside the City limits approximately 48% of roadways have sidewalks. In 2011, only 15.6 miles of bike lanes and 7.5 miles of bike paths existed in the Parish.

However, since FUTUREBR was adopted in 2011, bike facilities have increased to 28 miles of dedicated, on-street striped bike lanes and 35 miles of separated bike paths.

The Planning Commission studied the existence of sidewalks in the parish by design level in 2015. Downtown had 75% of streets with sidewalks, Urban had 53%, Walkable had 38% and Suburban at 50%.

TRANSPORTATION

Part 1: **Transportation Today**

Generally, funding small-scale projects such as intersection improvements or street widening are relatively easy to accomplish compared to the development of a robust multi-modal system. The public notices reductions in congestion when certain intersections are improved and acclaims it as "progress."

Since most of the traveling public utilizes automobiles, the positive impact of added and improved bike and pedestrian facilities is more difficult to quantify. This political reality has had a heavy influence on the allocation of transportation funding for the last 50 years.

Similar to the piecemeal development of the transportation infrastructure, the land development and associated land uses for the past 50 years have increasingly fostered an environment heavily dependent on the personal automobile. For a period of time, minimizing infrastructure costs was a key component to the profitability of private land development. As a result, the Parish experienced an explosion of one-entrance developments that do not connect together, where transit connectivity was not encouraged, and sidewalks were uncommon. Only recently has the market shown a demand for more walkable, connected communities.

Developers have utilized these types of streets; however, implementation has been accomplished in isolated instances with little thought to the area-wide connections. Improving connectivity and capacity must be undertaken to broaden transportation options in East Baton Rouge Parish.

Among the City-Parish's greatest challenges is the extreme congestion faced by residents. The Texas A&M Transportation Institute (TTI) determined in 2015 that Baton Rouge has the third highest level of interstate congestion for a mid-sized city in the U.S. TTI estimated that the average commuter in Baton Rouge pays the equivalent of a "congestion tax" in the amount of $1,030 per year. This value was determined by calculating the extra fuel consumed by vehicles traveling at slower speeds and the time wasted spent on congested roads. The value of time was calculated with a value of $16.01 per person-hour and $105.67 per truck-hour.

2015 Urban Mobility Scorecard. Yearly Delay per Auto Commuter in Hours.

The Texas A&M Transportation Institute publishes an Urban Mobility Scorecard that provides comprehensive analysis of traffic conditions in more than 400 urban areas across the country.

The map above illustrates how Baton Rouge ranks among five comparable cities in the Southeast: Birmingham, Alabama; Columbia, South Carolina; Knoxville, Tennessee; New Orleans, Louisiana; and Raleigh, North Carolina. These peer cities were selected from those analyzed by the Scorecard on the basis of regional affinity, population and the location of a major academic institution.

According to the 2015 Urban Mobility Scorecard, the Yearly Delay per Auto Commuter in Baton Rouge is 47 hours, making Baton Rouge the most congested mid-sized city in the Southeast.

Connectivity and Capacity

The Importance of Connectivity

A healthy and vibrant street network provides the basic infrastructure or "bones" of a city and the surrounding region. Its placement and design determine how and where residents travel and at what capacity. In a large sense, the road network provides for the cohesive and continuous flow of travel within the region, the local jurisdiction and from one neighborhood to the next. If done correctly, the street network enhances the sense of place within the community and provides opportunities for users to select among alternative routes.

In order to expand transportation options in the City-Parish, there are two principal problems that need to be addressed: lack of connectivity and insufficient capacity.

Appropriate connectivity within the street network maximizes accessibility and allows choices for people to use different routes and modes of transportation. Well-networked streets provide shorter, more direct routes between destinations. This increases the efficiency and reliability of the road network. During times of congestion or construction, drivers have more opportunities to switch to different routes and avoid delay. This is especially important for emergency responders as they need the fastest, most direct route to a fire or medical emergency. The net effect is that overall transportation demand is spread out over the entire street network rather than concentrated on one or two major streets. As illustrated in Figure 1, a network of narrower streets can handle more traffic (and create more

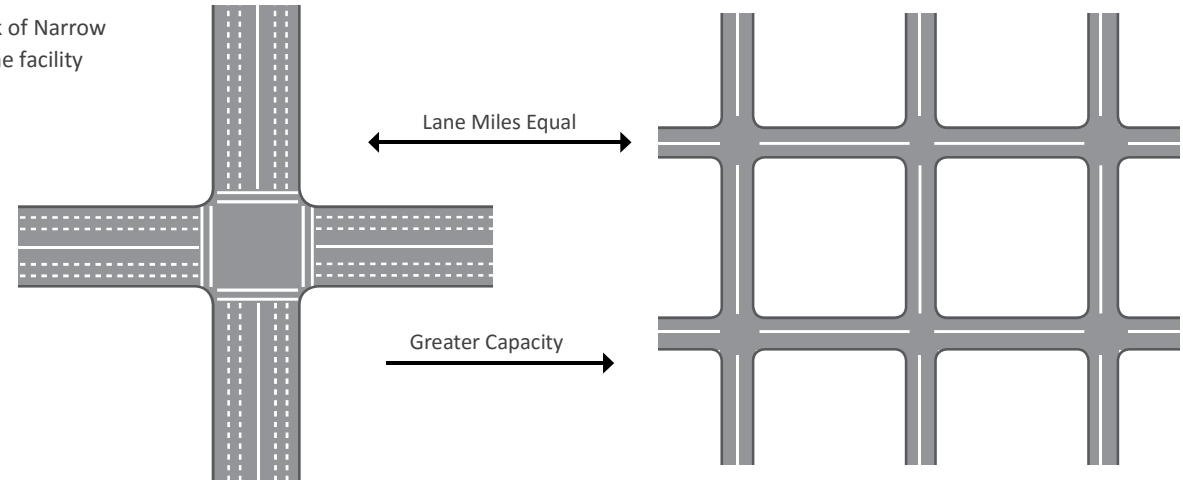


Figure 1: A Network of Narrow Streets vs. Multi-lane facility

accessible and developable land) than a single multi-lane facility. Redundancy increases the opportunity for drivers to select and avoid routes during delays or construction.

Desirable street networks contain a balanced grid of all roadway classifications throughout the system. This begins with the highest classification of interstate highways with controlled access and progresses through the hierarchy to arterial highways, collector roadways, local roads and residential streets. Properly balancing these different roadway types meets the local transportation needs and also appropriately connects the system to adjacent jurisdictions and the larger state, regional and national transportation networks.

The original street network in some of the oldest areas of Baton Rouge represents a traditional grid. Originally designed to accommodate people – as opposed to the automobile – these streets are at regular intervals with many intersections, are narrower in width, and are highly walkable. As local and regional travel demands have grown over the past 50 years, the street network has not kept pace. An incomplete grid and poor connectivity between roadway classifications has evolved, beginning with the lack of alternative routes for the highest classification of roadways (controlled access interstates) down to the lack of connectivity of regional and local roads and between adjacent neighborhoods.

In addition to improved connectivity between local subdivisions, gaps within the local street network need to be filled to complete the system and allow better flow throughout the larger network. Due to development patterns over the past 50 years, these gaps in the local network were ignored with more emphasis placed on resolving the individual intersection congestion needs.

Regional Connectivity

The Parish regional network is heavily influenced by natural topographic features, namely major rivers and environmentally sensitive areas. The Mississippi River to the west, Amite River to the east and Bayou Manchac to the south have all influenced the existing regional transportation network. Additional connectivity is needed, particularly across the Mississippi and Amite Rivers. For instance, recent studies have indicated that the greater Baton Rouge community has half the number of lanes crossing the Mississippi River as the New Orleans area and half as many lanes as Shreveport-Bossier has crossing the Red River.

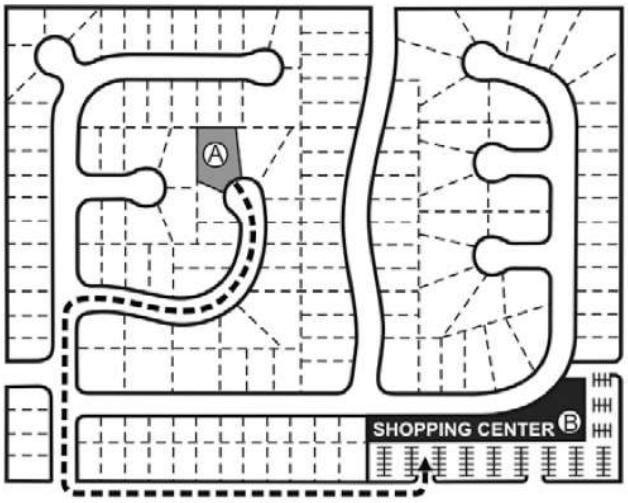
In addition, daily traffic congestion, frequent traffic incidents and crucial evacuation needs along the I-10 and I-12 corridors reinforce that alternative routes crossing both rivers are critical. The lack of alternative and relief routes during these congestion events leads to overcrowding on other State routes as well as on local streets and neighborhoods.

Local Connectivity

Historically, conventional suburban street networks provide the basic layout for many of the newer suburban neighborhoods of Baton Rouge. This design lacked connectivity and promoted the automobile as the primary and most logical form of transportation. With single entry and exit points via larger arterials and collectors, these street designs overstressed the arterials and collectors, divided neighborhoods, limited accessibility to community facilities, and minimized the potential of the pedestrian network as a form of travel to and from points of interest. Since 2014, the parish has adopted connectivity requirements in order to improve the roadway network and provide opportunity for other modes of travel.

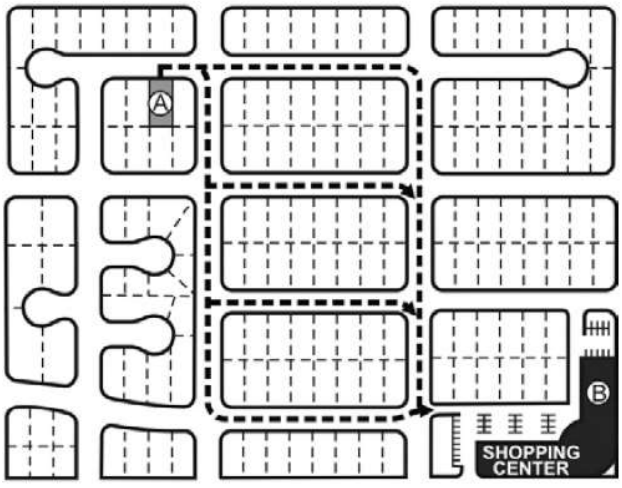
A contrast of the conventional street network versus the more traditional approach is shown in Figure 2. The traditional well-connected local street grid provides more choices which leads to enhanced safety, quicker response time by emergency vehicles and optional routes during traffic incidents. A system of compact blocks and streets increases the opportunities for and performance of other modes of travel, such as walking, bicycling, and taking transit.

Figure 2: Traditional Vs. Conventional Network Comparison



CONVENTIONAL SUBURBAN NETWORK

Channels traffic from local streets to the arterial street system. A system of parallel connectors.



TRADITIONAL URBAN CONNECTED NETWORK

Provides multiple and direct routes between origins and destinations.

Source: Source: Kimley-Horn and Associates, Inc. and Digital Media Productions as published in the ITE publication, Design Walkable Urban Thoroughfares: A Context Sensitive Approach.

The Need for Capacity

Improved connectivity will provide greater accessibility and increase efficiency and usage of the overall street network. However, capacity needs will still exist with improved connectivity. Several major routes within the Parish experience heavy congestion on a daily basis. These routes provide residents with local access and they are critical regional links into and out of the Parish to adjacent parishes and other parts of the state. Peak hour demand and delay on interstate systems and major arterials within the Parish has grown in hours of congestion per day. Major congestion on these primary routes trickles down to local arterials and collectors placing an additional traffic burden on an already over-stressed local system.

Louisiana, and the Baton Rouge metropolitan area, has an extensive port (water-based shipping) and rail system (bulk shipping). However, 40 to 50 percent of the goods shipped to and from destination sites in the state are carried by truck; representing almost $300 billion in goods annually shipped by truck. Overall, commercial trucking within Louisiana and the Baton Rouge area is projected to increase 17 percent by 2020.

Additional capacity is needed on the major routes within the Parish to accommodate current traffic demands and future growth. Alternate primary routes are needed to not only provide choices but increase the capacity of the overall highway system and help relieve system-wide congestion.

Areas within the Parish that have experienced substantial growth over the past 50 years are underserved by the existing local roadway system. The most congested areas are concentrated within the southern and eastern portions of the Parish. Key local routes need additional capacity within these areas to adequately address current and future needs. These improvements would not only relieve congestion at critical choke points, but promote safer driving conditions, improve accessibility, and encourage increased usage of the corridors by all modes of travel.

It will not be possible to address elements of connectivity and capacity without a coordinated approach to decision-making and funding. The Parish's current transportation system is a product of uncoordinated planning and development. The implementation and funding side also requires coordination and clear priority-setting to ensure that investments are strategic.

AGENCIES INVOLVED IN TRANSPORTATION PLANNING

Louisiana Department of Transportation and Development (LADOTD): LADOTD addresses state transportation issues and is responsible for design, construction and maintenance of state highways within the Parish. The recently published Statewide Transportation Plan "serves as the blue print for transportation investment." LADOTD is an advocate for multiple modes of transport, and strives to encourage sustainable growth across the States' transit system.

City-Parish Department of Transportation and Drainage (DTD): DTD is responsible for the planning and construction of new infrastructure in the Parish.

City-Parish Planning Commission (CPPC): The Commission is charged with governing the physical growth of East Baton Rouge Parish. The Commission's mission is to be a driving force supporting the development and implementation of the comprehensive plan, providing guidance for growth, development, and restoration, while recognizing the importance of maintaining healthy, diversified neighborhoods, encouraging increased access to economic opportunity, and enhancing the quality of life for all residents of East Baton Rouge Parish.

Capital Region Planning Commission (CRPC): serves as the Metropolitan Planning Organization (MPO) for the Baton Rouge area. CRPC serves 11 parishes.

Capital Area Transit System (CATS): Quasi-public organization that provides mass transit via bus operations in the City of Baton Rouge.

Federal Highway Agency (FHWA): FHWA carries out the federal highway programs in partnership with the state and local agencies (LADOTD, DTD, CRPC, etc.) to meet the Nation's transportation needs. The local FHWA office administers and oversees these programs to ensure that Federal funds are used efficiently within the state and the Parish.

Baton Rouge Recreation and Parks Commission (BREC): BREC is the agency that connects people to parks and nature in East Baton Rouge Parish.

Institutional Coordination

As with most urbanized areas, the transportation system in East Baton Rouge Parish is planned, funded and maintained by numerous sources and agencies. While some of the functions between the agencies overlap, the missions of the agencies can differ, which can result in "silos", or independent operations. All of the agencies and their staff have done their best to function within the existing framework. However, an overarching transportation plan is needed in order to create a transportation system that meets the needs of all Parish citizens.

Multiple Entities – Multiple Voices

Multiple entities within the Greater Baton Rouge Metropolitan Area share similar interest and concerns in terms of transportation options and infrastructure. Coordination and cooperation among such entities is needed to provide consistency in the development and implementation of the regional transportation program.

Collaboration among these entities is vital to prevent overlap of efforts, as well as to provide a stronger and more consistent foundation for transportation efforts within Baton Rouge as they pertain to the Parish, greater region and state. Similarly, discussion across agencies allows for shared resources by way of staff, and technical and financial support. Collaborative efforts allow for a common platform among agencies (regardless of size) that enhances and promotes joint ownership, and therefore the success of transportation projects.

Coordination with Others

In addition to coordinating with other governmental agencies, the success of FUTUREBR also demands coordination with non-governmental agencies, including the Baton Rouge Area Chamber, the Baton Rouge Area Foundation, BikeBR, the Capital Region Industry for Sustainable Infrastructure Solutions (CRISIS), the Center for Planning Excellence, the Greater Baton Rouge

Industry Alliance, Healthy Baton Rouge, and the Sustainable Transportation Action Committee.

In late 2017, CRISIS released its Capital Region Mobility Strategy, laying out a series of both long and short range actions to address the congestion issues facing the Baton Rouge area. This report, which was endorsed by the MPO, laid out proposals to enhance the capacity of the transportation system (including enhanced river crossings), providing increased travel choices (such as expansion of active transportation alternatives to promote the use of bicycles as a transportation alternative), and adoption of regional policies (such as Baton Rouge's Complete Streets Policy) to more holistically address the transportation issues facing the region.

Coordination with advocacy groups, non-profits, and private foundations such as those listed is essential to developing the consensus and momentum required to achieve the vision articulated in FUTUREBR.

Transportation System Funding and Investment

Numerous studies have demonstrated that new road construction alone will not solve the problems of a highly congested, sprawling urbanized area. While new and widened roads are an important element of a congestion solution, other transportation options must be given a high priority when deciding how to spend available dollars, such as transit, Intelligent Transportation Systems and Travel Demand Management. Transportation funding levels are on the decline so strategically utilizing the funding that is available is critical to solving congestion problems.

Where Does Current Transportation Funding Come From?

Funding for transportation projects within the Parish is derived from several sources. The LADOTD principally receives funding from a 20-cent per gallon State gasoline tax, federal aid dollars, self-generated revenues and other variable revenues, such as interagency transfers. Four cents per gallon of the State gasoline tax is dedicated to the Transportation Infrastructure Model for Economic Development (TIMED) program for specific projects (none of which are in the Parish), while the remaining 16 cents per gallon is dedicated to the Transportation Trust Fund which funds transportation projects through the legislatively controlled priority program. Federal gas tax dollars are distributed by the LADOTD through various programs such as capacity improvements, congestion mitigation and air quality.

East Baton Rouge Parish does not have a permanent revenue stream for transportation projects. In October 2005, the citizens of East Baton Rouge Parish voted and passed an extension - scheduled to sunset in 2030 - to the current 0.5% sales and use tax for local street and roadway improvements. Seventy percent of the proceeds are used for transportation improvements -- including the construction of new roads, widening of existing roads, intersection improvements and upgrades to traffic signalization and synchronization. The bonding capacity of the Green Light Plan (GLP) is estimated to be $550 million.

Transit in East Baton Rouge does have a dedicated funding source. The operating budget is derived from fare box revenue, federal, State and local funding, and property tax.

Part 1: **Transportation Today**

Is Current Funding Enough?

The short answer to the question of funding adequacy is "no." Current transportation funding simply is not enough. Statewide estimates by LADOTD project there is a $13.4 billion backlog in unmet highway construction needs for state routes in Louisiana. An additional $900 million per year is needed to avoid falling further behind. The annual statewide spending on transportation projects has decreased in recent years. Construction dollars spent on State routes within the Parish varies year-by-year depending on the priority of projects statewide. These State routes are crucial because they are the most heavily traveled highways within the Parish. Dollars spent on these routes represent a significant portion of the total annual transportation budget.

To further compound the LADOTD funding need, the 16 cents per gallon gas tax dedicated to the Transportation Trust Fund is a fixed price per gallon and is not adjusted upwardly to account for inflation, meaning it loses value year on year as inflation decreases the value of the dollar. The price has not been adjusted since it was enacted in 1984, and as a result, inflation has greatly reduced the purchasing power; it has decreased by almost 60% since its adoption. As vehicles become more fuel efficient, the average person will purchase less fuel to drive the same distance, further impacting available funding. Although gas tax revenue decreases, the needs for roadway maintenance, repair, and other system improvements do not, further eroding state transportation funding.

Federal funding for transportation is also a major concern. One-time federal stimulus dollars have bolstered transportation funding in the short-term, but the mood in Washington to cut spending coupled with a declining federal gas tax inflow, has resulted in uncertainty for programs dependent on these dollars.

According to a 2016 publication from The Road Information Project, 26% of Louisiana's Interstate pavements are in poor or mediocre condition, the fourth highest rate in the nation.

Louisiana's Interstate system experienced a 43% increase in vehicle travel from 2000 to 2014, the highest rate in the nation. The fatality rate on Louisiana's Interstates was the eighth highest in the U.S.

East Baton Rouge Parish recognized the funding shortfall for State routes within the Parish when the GLP was developed for transportation and street improvement projects within the Parish. Several of the most important projects of the GLP were on State routes that addressed severe congestion and provided relief to citizens within the Parish. Additional needs remain unaddressed on other state and local roadways due to funding limitations.

I-10 Road Construction

Capital Area Transit System

Finally, while the question of whether funding is sufficient for the City-Parish's transportation goals is a valid question, an equally important issue is how funding is spent. Investing in roads and capacity to relieve congestion is crucial, but long-term investments in bike, pedestrian, and other components of the system will also be is needed.

The Importance of Public Transit

A modern, choice-rider transit system is the Parish's goal. Today, Capital Area Transit System's (CATS) funding sources include funds received from fare box revenues, a dedicated property tax millage approved in 2012, and governmental entities. Services include several established bus routes that provide access throughout the community and CATS On Demand, a para-transit service for elderly and disabled populations for areas not readily served by a fixed transit route.

Choice riders in the City-Parish may be attracted to transit because of an array of social values, such as their desire to reduce their carbon footprint and be "green," but most will not make the switch to transit unless attracted by a high quality system that includes fast and frequent service, amenities like bike racks, comfortable and quiet vehicles, and good accessibility from stations and stops to work, home, and other destinations.

Today, transit coverage is widespread, but ridership is limited by infrequent service. This leads to a cycle of decline: too few buses and inefficient routes make transit an inconvenient choice, reducing the number of riders, which leads to further service cuts.

CATS has to improve transit service to be fast, frequent and reliable – improvements that will better serve existing transit users and encourage potential riders to choose transit because of its convenience compared to driving. New riders can be encouraged to choose transit when it provides a convenient option for getting around, and Baton Rouge's notorious traffic congestion could prove a strong incentive for taking transit instead. Potential riders may also be attracted by amenities like bike racks, comfortable and quiet vehicles, and improved pedestrian access to and from stations, all of which contribute to the ease of use.

Regional Transportation Assets

While this Transportation element focuses primarily on the public travel realm and streets, the region has several transportation assets linking East Baton Rouge Parish to the nation and world.

Passenger and Freight Rail

Passenger rail service is not currently available in Baton Rouge. A new rail connection from Baton Rouge to New Orleans would enhance the economy of the entire region. As Louisiana's key population and employment centers, the Baton Rouge and New Orleans areas account for 45% of the state's population, 48% of the state's jobs and 53% of the state's GDP. The economies of Baton Rouge and New Orleans are already tightly knit, but a secure passenger rail link between the two cities would expand business opportunities for Baton Rouge and attract new visitors to Baton Rouge.

By 2030, a line connecting Baton Rouge and New Orleans could reduce congestion and travel time along I-10 and provide a reliable, fast and convenient alternative to driving in addition to reducing regional carbon emissions.

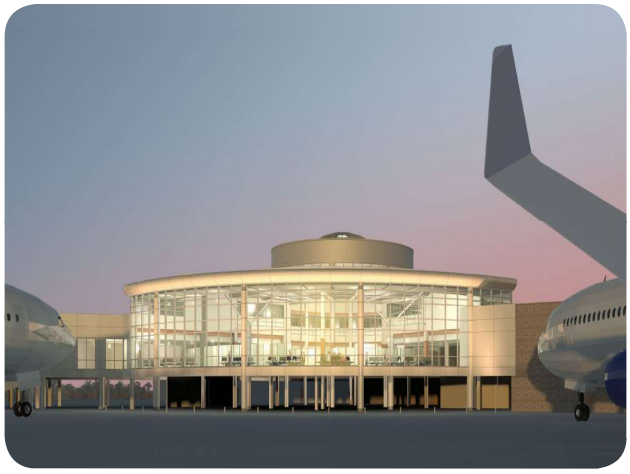
Three freight rail lines serve East Baton Rouge Parish: Canadian National Railway, Kansas City Southern Railway Network, and Union Pacific Railroad. The Canadian National line currently runs through the downtown Baton Rouge riverfront district. Relocating this line with minimal disruption to residential and commercial properties in the area could enhance the downtown environment and reduce crossing conflicts. Adding an additional rail bridge across the Mississippi would be another measure to consider to improve freight capacity. Currently there is just one freight rail bridge that crosses the river.

Aviation

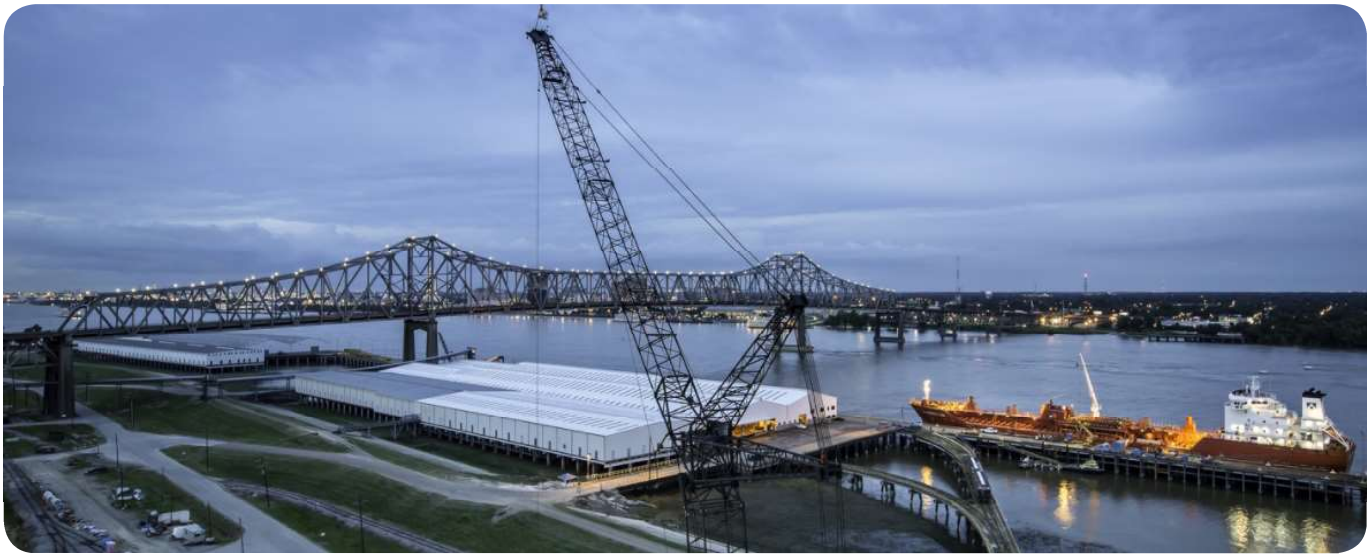
The City of Baton Rouge owns and, through the Greater Baton Rouge Airport District, operates the Baton Rouge Metropolitan Airport (BTR). BTR occupies about 1,250 acres of land and has two runways designed for air carrier aircraft operations. Over 60 daily flights depart from BTR. BTR undertook an update to their master plan in 2016 to serve as a general guide for future growth.

Located just off I-110 at the Harding Boulevard interchange, the airport is strategically located to service economic drivers such as downtown, Southern University and LSU. The chemical manufacturing plants located near the capital and US 61 are also be served by the airport.

Currently, there is very little transit service to the airport. A single bus route, Route 103 Airport Express to Downtown connects the airport to downtown, but automobiles – including taxis, personal vehicles and rental cars – make up nearly all traffic to the airport.



Baton Rouge Metropolitan Airport



Port of Greater Baton Rouge

Maritime

The Port of Greater Baton Rouge is located across the Mississippi River in Port Allen at the convergence of the Mississippi River and the Gulf Intracoastal Waterway. Through the Mississippi River inland waterway system, the port is linked to other major ports along the Gulf Coast between Florida and Texas. The port provides easy accessibility to world markets and the Panama Canal. One of the key features of the port is that it is adjacent to the Port Allen Lock, which is the northernmost point on the Mississippi River where barges can access the Gulf Intracoastal Waterway. The port ranks among the top ten U.S. ports in the nation and ranks 65th in the world by total annual tonnage.

The Port of Greater Baton Rouge provides excellent accessibility to intermodal transportation. The port is located adjacent to U.S. Interstate 10, and is in close proximity to U.S. Interstates 12, 49, 55, and 59; U.S. Highway 61, 65, and 90 and LA Highway 1. The port's public infrastructure and connectivity provide direct access to ship, barge, freight truck and rail. Its strategic location provides ready access to the nation's heartland via nearly 15,000 miles of inland water transportation as well as to the Gulf of Mexico and ocean trade lanes to and from Latin America and the rest of the world.

Barge Traffic

Florida Street

Part 2: **Transportation Tomorrow**

Given the existing conditions, institutional needs and funding challenges outlined above, the FUTUREBR Transportation Element outlines six major actions that must be taken. The overall goal is to build a system that will lead to improved quality of life and the opportunity to fully achieve the region's economic potential.

The six recommended actions are:

- Integrate land use and transportation facilities by implementing the Complete Streets Policy adopted in 2014 for future transportation improvements
- Prioritize and fund key congestion relief road projects
- Continue implementing connectivity requirements
- Improve public transit to service the riders of need while attracting the riders of choice
- Improve biking and walking opportunities
- Implement the latest technology in traffic control systems to manage existing transportation infrastructure

Complete Streets Solutions: Multi-Modal Transportation Approach

Currently East Baton Rouge Parish uses a conventional transportation decision-making process which is governed by automobile travel demand and level of service criteria. Street type and size are determined by – travel demand and level of service, ignoring neighborhood identity and community character considerations.

In contrast, a Complete Streets Solutions (CSS) approach, as promoted by the Federal Highway Administration and the Institute of Transportation Engineers, is a collaborative, interdisciplinary decision-making process that balances the needs of diverse stakeholders and offers flexibility in the application of design controls, guidelines, and criteria, resulting in facilities that are safe and effective for all users regardless of the mode of travel they choose.

While travel demand and level of service are considered, CSS takes conventional transportation planning one step further and marries the roadway to its surrounding context, establishing a street design which considers context-sensitive criteria such as the natural environment, short and long term goals and objectives set by the Parish, community character, and land use, to name a few.

The safe and timely movement of multi-modal traffic is achieved through the efficient use of three travel realms, which together, comprise a single right-of-way: context realm, travel realm, and the pedestrian realm. Common street types within a transportation network include freeways, arterials, collectors, and residential or local streets. CSS may be applied to all street types, but focuses on streets that play the most significant role in the local transportation network and that offer the greatest multi-modal opportunities – arterials and collectors.

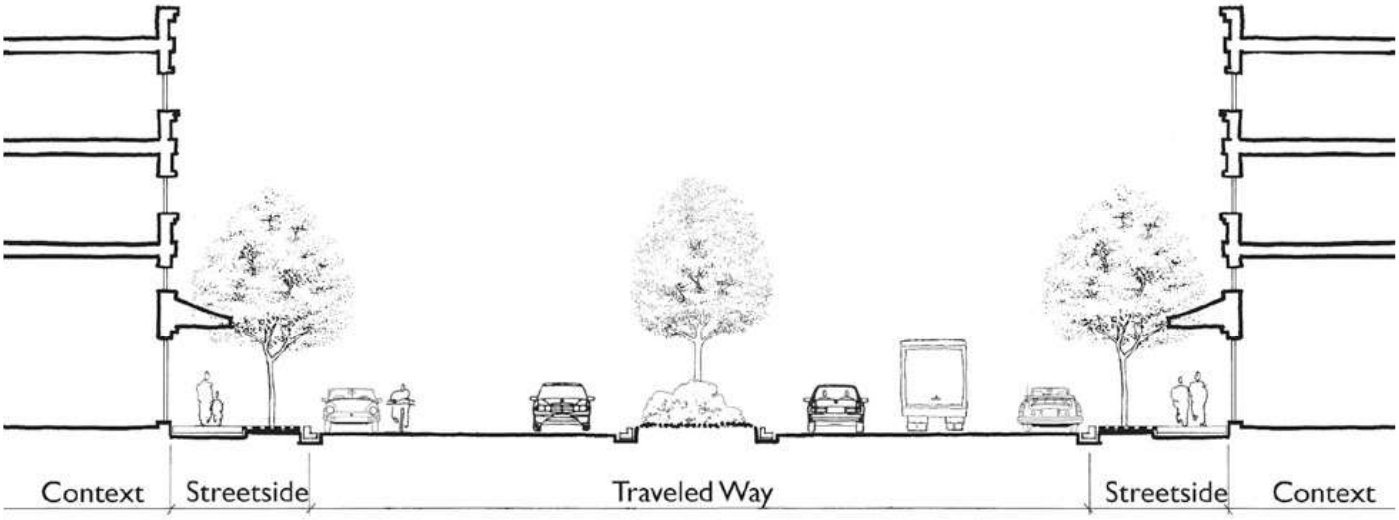
In order to facilitate the implementation of CSS, the City-Parish adopted a Complete Streets Policy and inaugurated a Complete Streets Committee in 2014. The Committee was created to provide stakeholder input on ordinances, policies, design criteria, standards, procedures and guidlines pertaining to the development of Complete Streets.

BASIC PRINCIPLES OF COMPLETE STREETS:

- Balance safety, mobility, community and environmental goals in all projects
- Involve the public and stakeholders early and continuously throughout the planning and project development process
- Use an interdisciplinary team tailored to project needs
- Address all modes of travel
- Apply flexibility inherent in design standards
- Incorporate aesthetics as an integral part of good design

Although the realms operate to serve a single purpose, each realm maintains a unique function that ensures the safe and efficient movement of traffic.

Figure 3: Complete Street Travel Realms



Source: Kimley-Horn and Associates, Inc. and Digital Media Productions as published in the ITE publication, Design Walkable Urban Thoroughfares: A Context Sensitive Approach.

STREETSIDE REALM

The streetside or pedestrian realm is most commonly identified as the sidewalk which parallels the street. However, this area is not limited to the sidewalk and is inclusive of all areas between the curb and building interface. Planting buffers, furnishings, signs, shelters, bicycle parking and other pedestrian amenities are located in this realm.

TRAVELED WAY REALM

This realm is most commonly referred to as the street. It represents the public right-of-way that extends from curb to curb and allows for the transport of more general traffic including cars, trucks, transit, and bicycles. Medians, transit stops, parking, and temporary stops, such as loading zones, may also be found in the Traveled Way Realm.

CONTEXT REALM

This realm identifies those properties (private or public) that are adjacent to the public right-of-way and may include residential homes, businesses, offices, and educational facilities, among others. The locations of these establishments are universal and range in placement from more urbanized to suburban context. These elements determine the overall character of the roadway in terms of type, scale and other modifications required of the adjacent travelway and pedestrian realm.

Integrating Context Sensitive Solutions with Existing City-Parish Planning

The Major Street Plan provides a hierarchical street classification that distinguishes streets based on their ability to move automobile traffic and focuses on minimizing automobile travel time and congestion at the regional level. It does not often consider that thoroughfare design needs to find a balance between the goals of transportation mobility and land access, and also provide for a range of modes of transportation.

This one-size-fits-all approach to roadway design does not allow adjustments to roadways as they move through varying land uses. The number and type of elements that should be implemented along a roadway vary depending on context – the buildings, businesses, and nearby neighborhoods that determine who uses the road. Traditional cross sections consist of similar design elements on a roadway, regardless of adjacent land uses.

However, because transportation and land use are inextricably linked, a context-sensitive approach is needed to ensure that streets respond to the uses they serve.

How arterials and collectors relate to larger freeways and smaller residential streets is a major issue when planning road network improvements. A network design that fails to account for land uses will produce overly saturated or underutilized roadways and unnecessary expenses or wasted resources. The recommended approach is to maintain the traditional street functional classification system which defines a roadway based on its specific function as it relates to both user mobility and accessibility of the greater transportation network while providing a Complete Streets framework to promote multi-modal street development in targeted areas.

ROAD WIDTH STANDARDS

The current Major Street Plan is based on an **Arterial, Collector** and **Local Street** hierarchy.

7 Lane = 200’ ROW* Curb and Gutter

6D Lane** = 200’ ROW

6D Lane = 150’ ROW Curb and Gutter

5 Lane = 125’ ROW Curb and Gutter

4D Lane = 150’ ROW Curb and Gutter

4D Lane = 125’ROW Curb and Gutter

4D Lane = 100’ ROW (Existing)

4 Lane = 100’ ROW Curb and Gutter

4 Lane = 80’ ROW Curb and Gutter

3 Lane = 60’ ROW Curb and Gutter

3 Lane = 80’ ROW Curb and Gutter

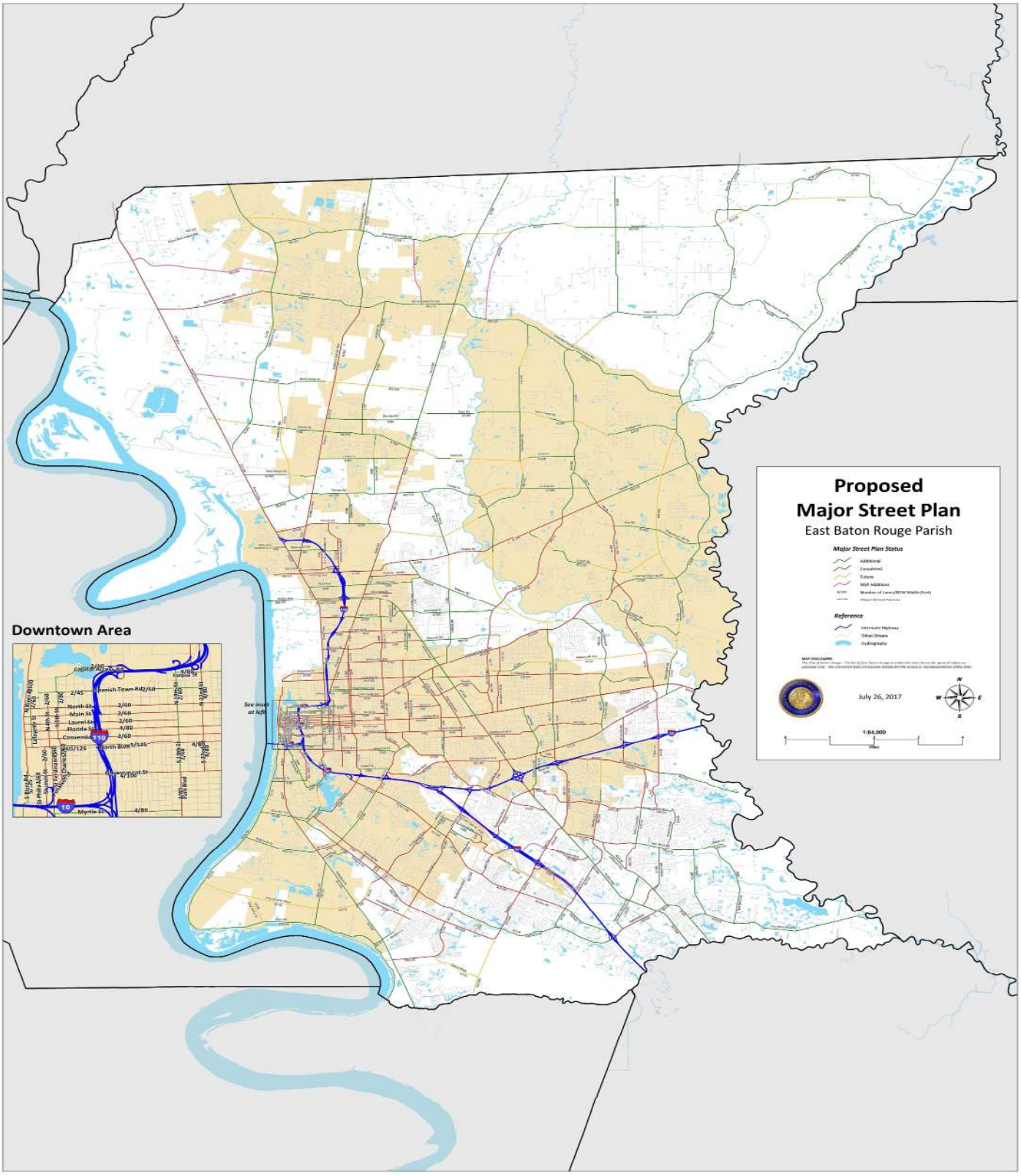
2 Lane = 80’ ROW

2D Lane = 60’ ROW Curb and Gutter

2 Lane = 60’ ROW Curb and Gutter

2 Lane = 45’ ROW Curb and Gutter

**ROW = Right of Way*
***D = Divided*



A detailed map may be found on the City-Parish map portal

Street Cross Sections

Use of a complete streets approach to transportation planning is a vital element to building public-private partnerships to develop centers, corridors, and neighborhoods to support the FUTUREBR Vision. This approach recognizes that thoroughfare planning must balance the regional, sub-regional and neighborhood functions of roadways in relation to desired community character. The following cross sections balance elements of conventional level-of-service analysis with other context-related criteria, including community objectives, thoroughfare type and the type and intensity of the adjacent land uses.

FUTUREBR Street Cross Sections include:

Mixed-Use/Downtown

Commercial

Neighborhood

Agricultural/ Rural

Park Boulevard

Part 2: **Transportation Tomorrow**

Transportation Street Cross-Sections

Downtown Street. Source: StreetMix

MIXED-USE/DOWNTOWN

Mixed-use and Downtown street cross sections serve a mix of land uses at varying densities. Buildings are close to the street. These streets promote a mix of transportation modes.

Characteristics may include:

- Diversity in land use - retail, restaurants, offices, services and a variety of housing
- Residential above first floor shops
- Business districts and pedestrian friendly, mixed-use centers
- Local and regional traffic
- Short setbacks and active street face
- High pedestrian traffic
- High transit and alternative modes of transportation

Priority elements:

- Wide sidewalks with transit access
- Dedicated transit lanes
- Bicycle lanes on designated routes
- Bicycle facilities
- On-street parking
- Curb extensions
- Shared parking
- Medians and planting strips

Commercial Street. Source: StreetMix

COMMERCIAL

Serve primarily single-use land uses at lower densities – commercial, residential, institutional or industrial. Buildings are typically set back from the road. Streets are dominated by motor vehicle traffic and have less pedestrian and bicycle activity. These streets are often wide and/or serve faster moving traffic.

Characteristics may include:

- Adjacent to strip development, big box stores or industrial warehouses
- Long blocks with low connectivity but easy vehicular accessibility
- High levels of traffic at moderate speeds

Priority elements:

- Travel lanes
- Medians
- Transit accommodations
- Protected turn lanes
- Wide pedestrian buffers
- For industrial areas, wide lanes
- Bikes lanes on designated routes
- Bicycle facilities

Part 2: **Transportation Tomorrow**

Neighborhood Street. Source: StreetMix

NEIGHBORHOOD

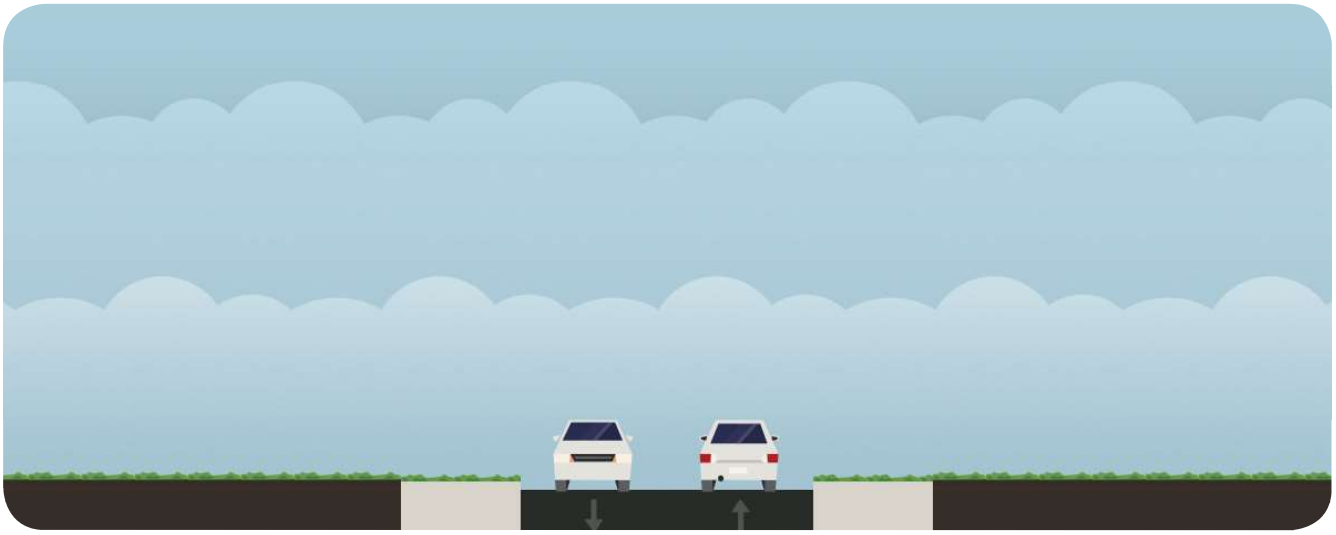
Serve residential areas at a range of densities, with low levels of motor vehicle traffic. Depending on the development, block length can vary. Small to medium sized setbacks allow for residential lawns and landscaping where desired.

Characteristics may include:

- Residential yards
- Street extension of pedestrian realm (crosswalks, children at play)
- High sense of community
- Low speed limits
- High pedestrian traffic
- Varied block length, depending on development
- Varied setbacks to allow for residential lawns and landscaping

Priority elements:

- Sidewalks a minimum of 5 feet
- On-street parking
- Planting strips



Agricultural/Rural Street. Source: StreetMix

AGRICULTURAL/ RURAL

Serve very low density rural areas with large tracks of land. Have multiple access points, a mix of auto and truck traffic, and are faster moving.

Characteristics may include:

- Single family homes on large rural lots
- Farming and low density industrial or ancillary uses
- Moderate traffic on larger thoroughfares
- Moderate speeds

Priority elements:

- Controlled access
- Wide lanes to accommodate agricultural vehicles

Special Purpose and Signature Street Overlays

Additional elements beyond land use and traffic demand influence street design. Coordination with transit, biking, natural areas and special purpose streets such as transit streets or parkways requires additional considerations, as shown in the following Special Purpose/Signature Street. These Special Purpose and Signature Street Types can be overlaid onto the core street types to provide further guidance to creating a robust, multi-model streets system.

Transit Street. Source: StreetMix

TRANSIT STREETS

These are streets that serve high levels of transit activity – i.e. streetcars, bus rapid transit, and fixed rail. This category is not intended to encompass all streets where transit exists – rather the more transit-intensive streets.

The cross-sections are intended for illustrative purposes to highlight ways in which transit services can be integrated into complete street concepts as corridors are developed. In addition, the cross-sections illustrate the appropriate placement of bicycle and pedestrian options within corridors where the right-of-way permits the inclusion of these elements.

PARKWAYS

Streets that extend through/along natural areas where there is a desire to maintain or create a park-like feel to the roadway, such as wider landscaped medians, natural materials on structures, and shared use paths alongside the road instead of sidewalks.

This category also includes urban residential parkways where speeds are lower, but with a similar aesthetic.

Parkway. Source: StreetMix

Linking Street Design to Planned Land Use

Integrating land use and transportation facilities and building the Parish's multi-modal street system through a complete streets approach make up a fundamental basis of the Parish's future transportation system. The transportation building blocks are designed to work hand-in-hand with land use policy to create public and private places that are vibrant and lively, and where people have a choice in how to get around on a daily basis.

Baton Rouge has made significant efforts to focus on pedestrian improvements within its existing transportation network. However, the Parish's current conventional framework slows the pace and consistency with which multi-modal measures are implemented, resulting in patchwork street types that lack progression throughout the transportation network. The CSS approach uses context types – which are typical patterns of land use found throughout the City-Parish – to define proposed thoroughfares, creating a consistent and efficient transportation system.

The Transportation Building Blocks allow for flexibility, so the street can work with and enhance adjacent uses. For example, an avenue located within a Main Street context should have a wider pedestrian realm to accommodate more foot traffic and pedestrian activity. Similarly, a sidewalk along an industrial corridor is less of a priority since pedestrians are not likely to use it, but larger industrial vehicles are common.

Downtown Sidewalk - 3rd Street

Bike Lane - Glenmore Avenue

Implementation Techniques

Incorporating designs for street facilities to ensure that new and rebuilt facilities support FUTUREBR's overarching goals of a multi-modal and flexible transportation system is also important. The following techniques should be incorporated into the City-Parish's transportation design manuals and standards.

Managing Transitions

How certain transportation amenities, such as roadways, sidewalks, bike lanes and transit transition from one street type to the next must be considered to ensure the successful implementation and utilization of the entire right-of-way. Transitions are most commonly due to street width limitations and include the modified progression of traffic through the traditional street functional classification system as defined above. Transitions may include traditional geometric design changes, such as smooth tapers where lanes change, and speed limit changes where design speeds change. Based on surrounding context, transitions may extend beyond geometric changes and include multi-modal considerations, as well as visual cues to the change in context. Transitions of these types can indicate that changes in the emphasis on pedestrians, the width of the street, or entering or leaving a special district or corridor.

Designing Intersections

In any street network the design and operation of intersections is significant. Multi-modal systems require the safe movement of passenger vehicles, transit, heavy vehicles, bicyclists, and pedestrians through the intersection. Intersection design encompasses the intersection itself and the approaches to the intersection, and may impact adjacent land uses. As with corridors, certain types of intersections are appropriate to specific land uses.

Stanford Avenue

CPEX Better Block - Government Street

The Institute of Transportation Engineers publication, *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*, identifies the following principles for the design and operation of intermodal intersections:

- Minimize conflicts between modes
- Accommodate all modes with the appropriate levels of service for pedestrians, bicyclists, transit, and motorists
- Avoid elimination of any travel modes due to intersection design
- Provide good driver and non-driver visibility
- Minimize pedestrian exposure to moving traffic on roads with high speeds by greater seperation
- Design for low speeds at critical pedestrian-vehicle conflict points
- Avoid extreme intersection angles and break up complex intersections with pedestrian refuge islands
- Ensure ADA compliant pedestrian opportunities to accommodate all people
- As with other design considerations in the Context Sensitive Design approach, accepted engineering guidelines should be used

Example of "Bulb-Out" intersection

In urban areas, intersections have a significant design function as well as a transportation function. All too often, intersections in the Parish have been expanded to ease congestion with little to no regard to the context of the area. Intersections should be designed to be as compact as possible in urban contexts. Intersections should minimize crossing distance, crossing time, exposure to traffic, encourage pedestrian travel and increase safety. The use of "bulb-outs" at intersections is a common approach to terminate parking lanes for improved sight lines, narrowing the crossing distance and enhancing cross-walk delineation.

Example of contrasting colors and materials for pedestrian facilities - LSU

Intersections in urban contexts may use contrasting colors, patterns or textures for pedestrian crossing movements, which increases safety by delineating safe cross-walks for pedestrians and providing visual cues for drivers. Where safe, midblock crossings should be considered for long blocks with high pedestrian use.

Part 2: **Transportation Tomorrow**

Roundabout - Capitol Access Road

Outside of urban context areas, the purpose of roads shifts from access of properties to mobility of the traveling public. The design of intersections changes accordingly. In suburban and rural areas, roundabouts are an effective solution for intersections on roads serving up to 25,000 vehicles per day for single-lane roads and 40,000 vehicles per day for dual-lane roundabouts. Roundabouts have been proven to reduce crashes compared to conventional four-way stop or signal controlled intersections. Roundabout intersections can accommodate pedestrians, bicycles and transit. These types of intersections also provide opportunities for landscaping and public art.

For higher volume roads, several alternative intersection designs have emerged and could be employed to address the significant traffic congestion in the City-Parish. These innovative intersections modify how left turns are completed and dramatically reduce delay, while costing less than grade-separated alternatives (i.e. overpasses).

Signalization enhancements could address timing ensuring signals along major corridors are coordinated.

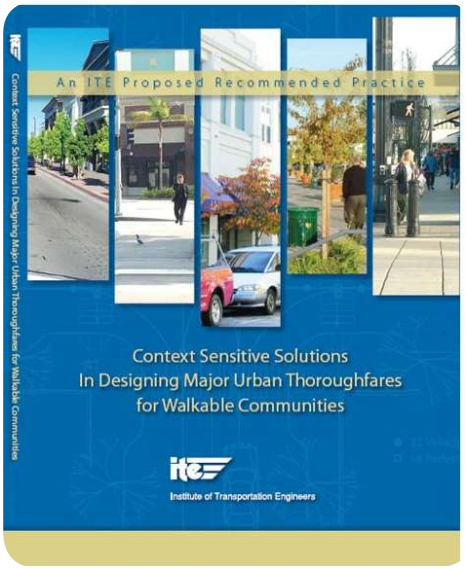
Roundabout - LSU

Access Management

"Access Management" means regulating access to streets, roads and highways from public roads and private driveways. Measures may include, but are not limited to, restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and use of physical controls, such as signals and channelization including raised medians, to reduce impacts of approach road traffic on the main facility. Access Management is an important concept since it improves safety for vehicles, pedestrians and bicycles. It also improves traffic flow and vehicle capacity, which in turn improves freight mobility by getting goods and services to businesses more efficiently.

Design Components

Context sensitive design gives consideration to a number of design components that respond to the multi-modal nature of the transportation system. Guidance documents including the Institute of Transportation Engineers publication, *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*, and various publications of American Association of State Highway and Transportation Officials should be consulted for the proper and safe application of each of these components.



Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities

Woman's Hospital

Below-grade medians can serve as low impact stormwater treatment facilities. Curb cuts allow runoff to collect and infiltrate in the median. Hydric vegetation (those species adapted to a wet habitat) can aid water filtration and add beauty to the urban environment.

Having established a systemwide approach to transportation design, the following three sections of this plan address specific implementation topics: relieving congestion, expanding connectivity, and improving transit, biking, and walking infrastructure. Each topic draws upon a Complete Streets approach, so that even near-term traffic congestion relief projects should be planned and constructed to also improve multi-modal travel in the City-Parish.

A roadway reconfiguration known as a road diet should be considered for traditional four-lane undivided highways. Road diets offers several high-value improvements at a low cost. In addition to low cost, the primary benefits of a road diet include enhanced safety, mobility and access for all road users and an environment to accommodate all transportation modes where possible. A classic road diet typically involves converting an existing four-lane, undivided roadway segment to a three-lane segment consisting of two through lanes and a center, two-way left-turn lane.

Example of well-connected street network - Downtown Baton Rouge

Connectivity Improvements and Policy

The transportation system is a network of streets and highways that serves and connects multiple places and people via multiple modes of travel. A network approach to transportation projects focuses on connecting people to places — ultimately allowing places to become more intense centers of social and economic activity. A highly networked system of streets, with at least 150 intersections per square mile, provides multiple routes between destinations, compact block sizes, sidewalks, narrower streets and a greater capacity than unconnected street systems.

Immediate Improvements

Immediate improvements to the transportation network can be made by providing additional grid connections — that is, more routes to get from one place to another. These improvements will reduce travel time, save travel costs, reduce congestion and improve access for commuters, local trips and emergency vehicles. Some of these needed connectors also provide access for areas anticipated to grow, particularly within the southern portion of the Parish. As these corridors are improved, they should incorporate applicable Complete Street principles to promote their use by all modes of traffic.

Connectivity Policy

One of the major actions to fulfill the FUTUREBR vision is improving the connectivity of local streets between subdivisions and neighborhoods, particularly for new development. Strengthening the enforcement of connectivity required for future development is a key to achieve a critical goal of improving the overall street network. In the past, waivers have been granted due to public pressure. The Unified Development Code was updated in 2017 to prohibit waivers.

To ensure that new development in the City-Parish supports and enhances connectivity, private development should be designed with a well-connected street system. Neighborhoods designed with one or two streets feeding into a collector or arterial have several negative impacts. Trips are typically longer, even when "as the crow flies" distances are short. They usually require a motorist or pedestrian to make some portion of the trip on a major road or arterial. All of these factors add to greater capacity needs on arterials, thus increasing capital and maintenance costs, while discouraging short trips on foot. A well-connected street system, in contrast, has many short streets and intersections and few dead-ends. Travel can be more direct, because the network provides many different routes, instead of one or two main corridors. Trips between destinations within the neighborhood can stay within the neighborhood, lessening the need for more arterial capacity. Travel by foot or bicycle is easier on these networks. These networks can include cul-de-sacs, as long as they are not so frequent as to impede direct travel.

General Criteria and Street Connectivity Standards

A proposed development or subdivision should provide direct connections in its local street system to and between local destinations, such as parks, schools, and shopping, without requiring the use of arterial streets. New development or subdivisions should incorporate and continue all collector and local streets stubbed or planned at its boundary. Dead-end streets that are not cul-de-sacs should not be permitted except in cases where such streets are designed to connect with future streets on abutting land. New developments and subdivisions should be designed with a context sensitive approach.

Connectivity standards are not intended to force new development to take place only on a grid-type layout. Curvilinear streets can be a pleasure to travel on while still providing good connections. By using a set of flexible standards, like those above, developers will still have a great deal of flexibility in how they design their projects.

DOTD ADOPTS A COMPLETE STREETS POLICY

- On all new and reconstruction roadway projects that serve adjacent areas with existing or reasonably foreseeable future development or transit service, DOTD will plan, fund and design sidewalks and other pedestrian facilities. The appropriate facility type will be determined by the context of the roadway.
- On all new and reconstruction roadway projects, DOTD will provide bicycle accommodations appropriate to the context of the roadway – in urban and suburban areas, bicycle lanes are the preferred bikeway facility typed on arterials and collectors. The provision of a paved shoulder of sufficient width, a shared use trail, or a marked shared lane may also suffice, depending on context.

Connectivity and State Routes

Considering capacity and connectivity, State routes are some of the most significant roads in East Baton Rouge Parish. For the Parish to accomplish the Vision of the Comprehensive Plan, Parish and State agencies must be aligned in their goals and missions. To achieve this, several initiatives must be agreed upon by all parties.

It is essential that the Parish and the State agree to cross-sections and road contexts that promote the components of FUTUREBR land use and transportation aims. A cooperative endeavor agreement between the two agencies could ensure the success of this partnership. LADOTD is also endeavoring to reduce the amount of lane miles they maintain. The Parish can accept these roads through the LADOTD Road Transfer Program with sufficient funding for maintenance.

Capital Area Transit System

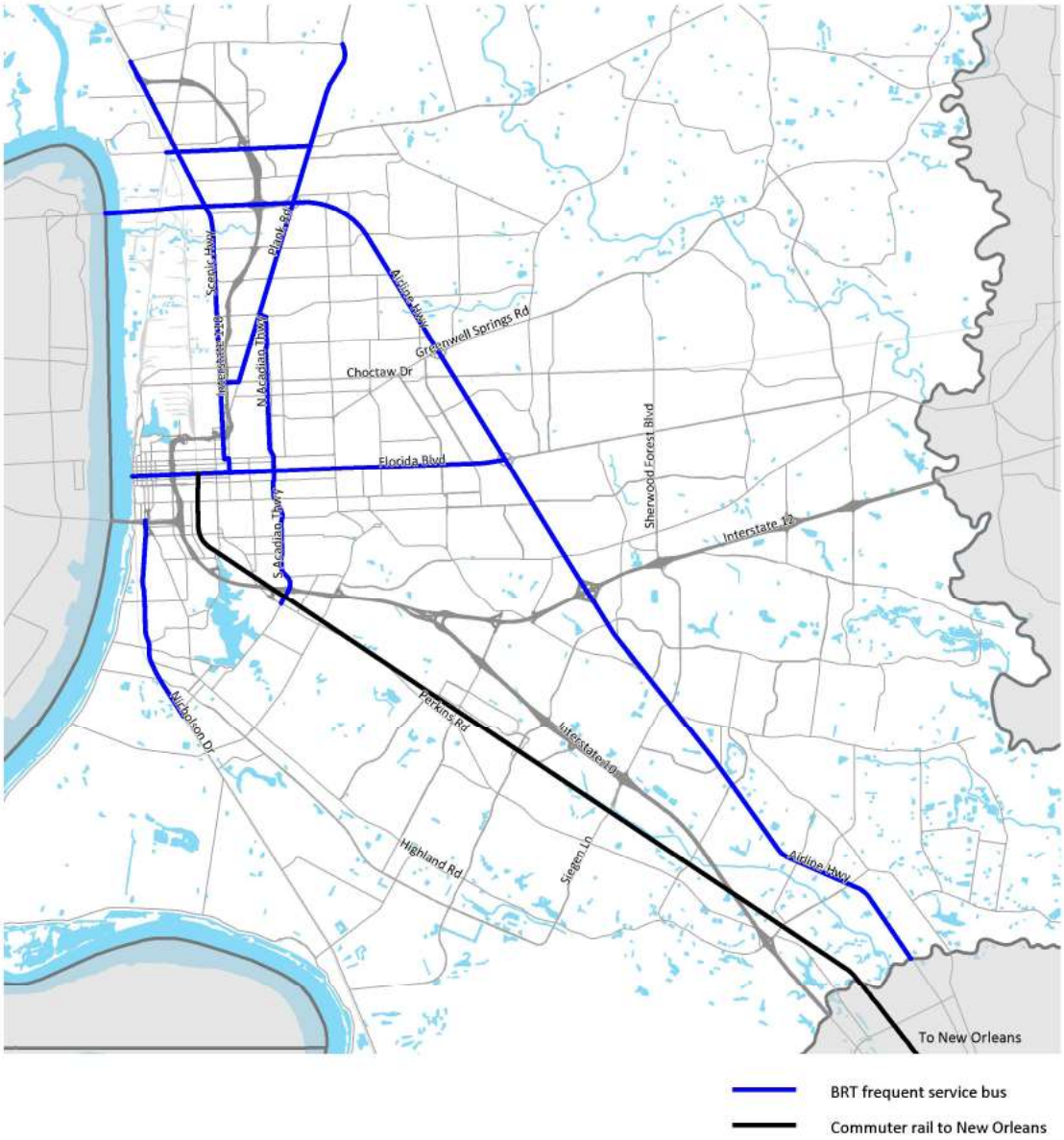
Advancing the FUTUREBR Vision for Transit

Strengthening the transportation system starts with the development of a signature bus lines that provide fast, frequent and reliable service and attract new riders with quality facilities and amenities. A strong foundation of bus lines creates a transportation option that has broad support. Signature routes should provide transit route services at frequencies of at least 20 minutes during the peak periods and 30 minutes in the off-peak periods for many routes throughout the current service area. It should provide service to the Parish's educational facilities and the service levels needed for students. Adding express services that are more suited to park-and-ride transit further expands the foundation needed to support a full transit system for the City-Parish.

A backbone system of higher capacity transit corridors that interact with the foundation bus service provides fast reliable transit services that support the growing activity and employment centers that are central to the FUTUREBR Vision. These high-capacity transit corridors provide opportunities for well-connected catalyst projects and spur desired development within targeted growth centers.

Data suggests that most people in the United States are "comfortable" walking no more than a ¼ mile to or from public transit stops. The first mile/last mile problem arises when a potential rider is further than this "comfortable distance" to a fixed-route stop. Unless a potential transit rider's home and destination (work, shopping, or entertainment) are both within ¼ mile of a fixed transit stop, that person is unlikely to consider transit a viable option for the trip. Using technology, arrangements for on-demand transportation can be used to eliminate the first mile/last mile barriers and encourage additional transit ridership. Finally, it is imperative to improve access for transit users with mobility impairments and disabilities.

Figure 22: Potential High-Capacity Transit Corridors



The proposed elements of an expanded transit system include Bus Rapid Transit (BRT) and a variation on BRT called High Frequency Bus. A commuter rail system may also play a role in the City-Parish's future transit system.

Proposed Elements of an Expanded Transit

Bus Rapid Transit (BRT)

Bus rapid transit is a relatively new technology that combines efficiency aspects of rail transit with the route flexibility of buses. It can operate on exclusive transit ways, high occupancy vehicle lanes, expressways, or ordinary streets. Compared to typical diesel bus transit systems, a BRT system offers potential advantages by combining priority transit lanes, alternative fuel technology, cleaner and quieter operation, rapid and convenient fare collection, and integration with land-use policy.

The City/Parish is looking at three BRT initiatives in the North Baton Rouge area. These include Florida Street, the Plank Corridor and Harding Boulevard. CATS has undertaken the Plank Road corridor as the initial catalyst project. The Plank Road BRT includes new transit infrastructure, zero emissions electric buses, and efficient service. The improved route will feature stops at Winbourne, Delmont Village, Denham and will end at the LSU Baton Rouge Urgent Clinic on Airline.

CATS electric bus in front of the Old State Capital

High Frequency Bus

High frequency bus service operates in mixed traffic and has short stop spacing. Increased efficiency of this service comes from intelligent system operations. Priority and preemption is used at intersections and real-time information is given at stops through the utilization of Global Positioning Satellite technology.

Regional Commuter Rail

Commuter rail is passenger rail service that connects people in larger distances – such as Baton Rouge and New Orleans. Stations are being considered in Mid City near the former Entergy site, and in the Medical District near Bluebonnet Boulevard. Unlike city bus or tram, commuter trains run several trips a day. Commuter rail typically operates in designated rights of way separate from other forms of transportation.

Light Rail

Light rail would provide accessible, frequent and reliable services that can quickly carry many people to heavily visited areas such as medical districts. It could provide attractive short-trip urban circulation and help establish street life and public spaces all along its route. Service would be frequent, with a new light rail arriving every 15 to 20 minutes during peak times. Stations could be placed every 2-4 blocks to maximize efficiency.

Park and Ride

Park and ride parking lots provide a great way for people in the outer areas of the City-Parish to be able to drive less, access frequent service transit, and reduce urban traffic congestion. Proposed park and ride locations include Cortana Mall, Airline Highway and Foster Drive, and the Medical District/Mall of Louisiana (also proposed site of a regional commuter rail station).

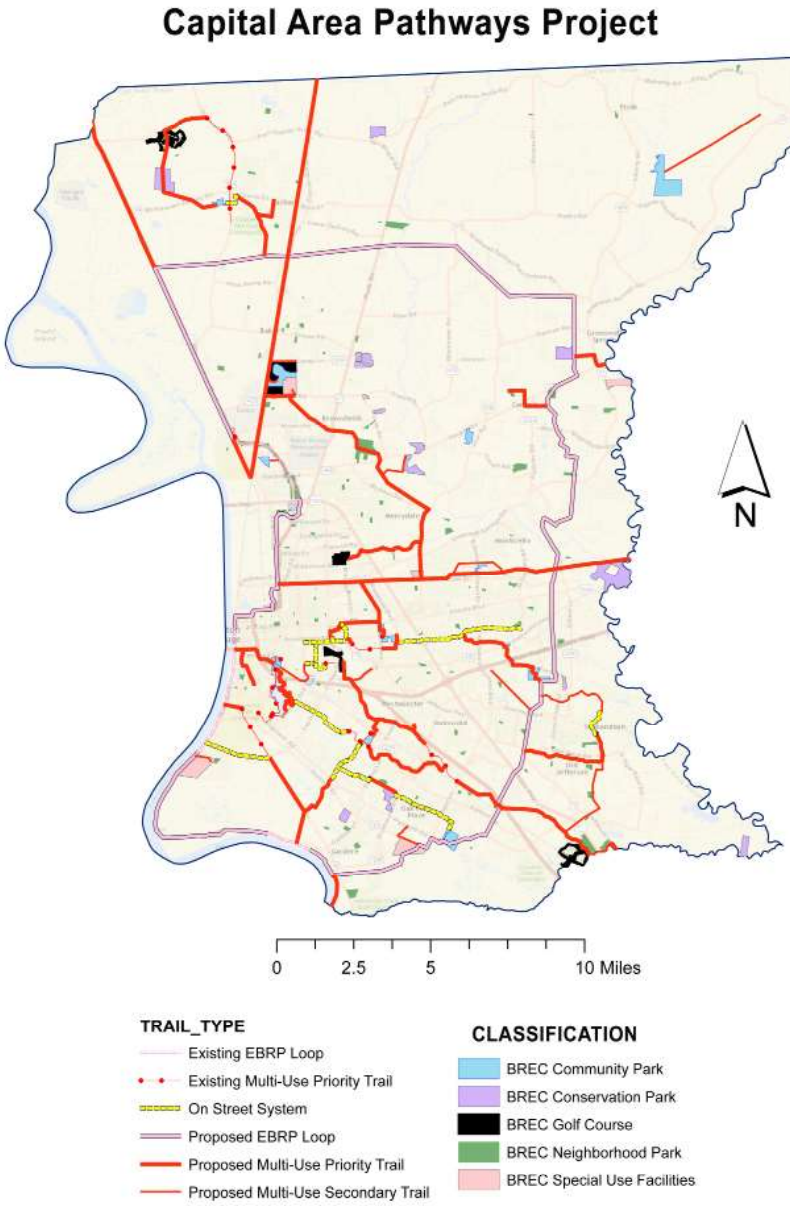
Biking and Walking Opportunities

FUTUREBR recognizes that the transportation system of tomorrow's great cities will be truly multi-modal and that pedestrian and bicycle access throughout the Parish will be critical to developing a modern transportation system. Bicycle and pedestrian facilities are often overshadowed by larger, more expensive projects given their localized impacts and lower project cost implications. But it is these neighborhood-scale improvements that make it possible and even preferable to leave the car at home. By developing a

system of on- and off-street facilities that complements the Parish's major roadway and transit projects, the City-Parish will be able to extend the effectiveness of the overall system and increase quality of life throughout the Parish. The City-Parish, along with LADOTD and BREC are preparing a bike and pedestrian master plan which would address these multi-modal needs.

Trail Network and Facilities

An off-street system of multi-use paths is another significant element of the bicycle and pedestrian network, serving as the complement to on-street facilities such as sidewalks and bike lanes. BREC's Capital Area Pathways Project has set forth an ambitious plan for an off-street network of trails and pathways. Connections to and expansions of the BREC proposed system should be targeted for areas with the greatest potential for foot and bike traffic - areas of high residential or employment activity. By ensuring that on-



An off-street system of multi-use paths is another significant element of the bicycle and pedestrian network, serving as the complement to on-street facilities such as sidewalks and bike lanes.

street and trail improvements are coordinated with each other and other transit options, and by closing gaps in the system, bicyclists and pedestrians will have safe routes to get where they need to go, increasing the overall effectiveness of the transportation system, improving health, quality of life, and reducing congestion.

Furthermore, the provision of access for pedestrian and bicycles can improve commuting options throughout the Parish. Connections into existing neighborhoods using bicycle and pedestrian scale infrastructure improvements can help alleviate localized congestion by promoting the use of non-motorized modes for short trips such as those to a park or between neighborhoods. In addition, this type of solution can provide a way for children and elderly populations to access community resources that might be contained within the neighborhood centers without accessing heavily travelled automobile corridors.

A well connected pedestrian and bicycle network can help to facilitate the expansion of the effective service area for the transit system within the Parish. By providing more direct routes to transit stops and reducing circuitous routes, system efficiencies can be gained through pedestrian and bicycle connections that greatly increase the ability for people to utilize mass transit options.

In addition to the many road facilities needed for bicyclists, there is also a need for centralized bike facilities downtown and in other employment centers. The relative cost of centralized bicycle facilities is small, and they can remove barriers that keep would-be cyclists from commuting by bike. Securing funding sources for these bike system improvements will be a major step in making the bicycle a viable alternative to driving.

Bike Share

Recently, bike share programs have risen in popularity. A bike share system is integral to the development of an urban bicycle system and diversifying transportation mode choice for short distance and point-to-point trips. Bike share startups such as Hubway and Zagster have significantly affected mode choice in cities such as Boston and Winston-Salem. The Baton Rouge Area Foundation, local government, BREC, LSU, Southern University and the business community have partnered to deliver a bike share program with stations located at sites of greatest demand. The program's membership structure is designed for an array of user preferences, and subscriptions allow access to a bike without the cost of owning and operating one. Bike share systems can also be designed to interface with mobile app technology for user convenience and data collection to streamline and improve the bike share program.

Source: Melbourne BikeShare, Melbourne, Australia

Bike and Pedestrian Opportunities Toolbox

Sidewalks - 3rd Street

Sidewalks are important to pedestrian travel. Wider sidewalks in commercial areas facilitate a mix of uses, and the addition of streetscaping can promote pedestrian use.

Bike Lanes - North Boulevard Greenway

Bike lanes are located on the edge of a street or between the travel lanes and parking lanes. Typically, they are 5-6 feet wide and allow cyclists to have a protected space on the street.

Multi-use Path - Mississippi River Levee Path

A multi-use path accommodates pedestrian and bicyclists, separating their travel from automobiles. At least 10 feet wide, a multi-use path allows for a high volume of users. Hardscape paths generally serve commuters; crushed stone paths tend to be recreational.

Streetscaping - Florida Street

Streetscaping refers to the use of planted areas and other beautifying techniques along transit corridors that can attract pedestrians and make pedestrian and bicycle use more pleasant.

Pedestrian Crossing - LSU Campus

Pedestrian crossing connect neighborhoods and can be at intersections or mid-block. Signal timing and pedestrian “islands” can improve safety for walkers.

Sharrow - Dalrymple Drive

Sharrows are special lane markings for roads too narrow to accommodate a separate bike lane. These markings alert drivers to the likelihood of encountering bicyclists.

Woonerf - Madison, Wisconsin

A Woonerf is a living, social street concept originally implemented in the Netherlands. This technique uses shared spaces, traffic calming, low speeds, and often flattens the grade separation between the pedestrian realm and the travel realm to create a pleasant environment for users of all modes.

Cycle Track - Montreal, Canada

Cycle tracks are bike lanes separated from automobile traffic by curbs or other street surface treatment such as a rumble strip or special paving. Cycle tracks are useful for heavily trafficked bicycle routes.

Part 3: **Goals, Objectives and Actions to Achieve the Vision**

This section details the transportation goals, objectives and actions that will move East Baton Rouge Parish toward the community's Vision.

Goals are the big overarching ideas, changes or practices that are essential to realize the community's Vision.

Objectives establish specific, measurable, attainable and realistic goals that guide how the Comprehensive Plan is implemented in a way that will achieve the Vision.

Actions outline the steps needed to achieve the objectives.

Transportation Goals

1. Establish a road network with improved and acceptable local and regional traffic congestion levels.
2. Establish and support the development of connectivity throughout the transportation system.
3. Implement complete streets policies and design concepts.
4. Develop a modern, choice-rider transit system.
5. Enhance the bicycle and pedestrian network throughout the Parish.
6. Improve coordination between agencies to improve communication and transportation results.
7. Reduce vehicular emmissions.

Transportation Goal 1

Establish a road network with improved and acceptable local and regional traffic congestion levels.

Objective 1.1

Pursue strategic investments to reduce congestion related delay

Actions to support objective 1.1:

1.1.1 Coordinate with the Capital Region Planning Commission (CRPC), the Louisiana Department of Transportation and Development (LADOTD), and the Federal Highway Administration (FHWA) and other influencing agencies on the development of a Comprehensive Transportation Plan that can be adopted by Metropolitan Council.

1.1.2 Prioritize transportation projects by order of need and cost effectiveness in the transportation plan.

1.1.3 Incorporate into the UDC a requirement for a traffic impact study to be completed by developers on projects over a certain size. Such studies should recognize and provide incentives for alternative modes of transportation.

1.1.4 Update the Comprehensive Transportation Plan in conjunction with the City-Parish Comprehensive Plan every five years to ensure maximum effectiveness of transportation investments.

1.1.5 Utilize Intelligent Transportation Systems and other innovative concepts to maximize the efficiency of the existing network.

Objective 1.2

Improve regional mobility through identification and prioritization of required projects and consequent funding of the projects at the state and federal level.

Actions to support objective 1.2:

1.2.1 Prioritize regional transportation projects, facilitate adoption within the MPO's Transportation Improvement Program and LADOTD's Surface Transportation Improvement Program.

1.2.2 Promote regional transportation projects at the state and federal levels to ensure that their importance is fully understood and supported.

1.2.3 Coordinate with LADOTD and FHWA as relevant projects move through funding and implementation processes.

Objective 1.3

Adequately fund priority projects.

Actions to support objective 1.3:

1.3.1 Develop programs to effectively compete for new federal grants and funding sources as they become available.

1.3.2 Maximize available state funds spent on local transportation projects by coordinating the Comprehensive Transportation Plan with LADOTD and working at all levels of government to insure priority is given to regional transportation challenges.

1.3.3 Leverage available funds with private investment to achieve a positive land use-transportation connection; seek to improve mobility, enhance air quality, support economic growth, and ensure the financial stability of the transportation system.

1.3.4 Identify and pursue other potential funding sources. These potential sources include local taxing and bonding, public private partnerships and innovative federal programs.

1.3.5 Develop project metrics that include a bonus in the scoring of multi-modal corridors for future consideration.

Objective 1.4

Develop the transportation system to facilitate the economic needs and development of the Parish and region.

Actions to support objective 1.4:

1.4.1 Develop appropriate adequate facilities for movement of freight traffic within and through the region.

1.4.2 Identify and prioritize upgrades to intersections and interchanges to increase accessibility and safety.

Transportation Goal 2

Establish and support the development of connectivity throughout the transportation system.

Objective 2.1

Establish a network of streets to further reduce congestion, and ensure public and private development consistently supports the goal of connectivity for the street network.

Actions to support objective 2.1:

2.1.1 Require connectivity in new developments through appropriate codes and ordinances to ease congestion and more evenly distribute traffic.

2.1.2 Enforce and prioritize connectivity at every level of government.

Objective 2.2

Add connections to the existing street system, where possible, to improve the existing network of streets.

Actions to support objective 2.2:

2.2.1 As part of the Comprehensive Transportation Plan, identify all locations where achievable connections can be made that improve the street grid.

2.2.2 When roadway connections are not possible, provide convenient connections to other modes of transportation through implementation of well-connected streets.

2.2.3 Provide bicycle or pedestrian facilities along riparian areas, rights-of-way and servitudes when possible.

2.2.4 Collocate intermodal connections – including transit stops, station areas, enhanced bicycle facilities such as wayfinding and short-and long-term parking, high quality pedestrian infrastructure, and shared public parking – particularly at mixed-use centers and employment centers.

Objective 2.3

Manage access to higher volume roadways.

Actions to support objective 2.3:

2.3.1 Develop access management plans to maintain traffic flow and reduce vehicular accidents.

Transportation Goal 3

Implement Complete Streets policies and design concepts.

Objective 3.1

Ensure Complete Street policies and standard cross sections are institutionalized and practiced throughout the Parish

Actions to support objective 3.1:

3.1.1 Develop and implement Complete Streets cross section standards, including provisions for roundabouts.

3.1.2 Ensure streets with significant traffic volumes and transit routes incorporate appropriate transit pullouts and as part of their street design to maintan traffic flow.

3.1.3 Work in partnership with LADOTD to leverage corridors and funding mechanisms that would be of mutual benefit for Complete Streets applications.

3.1.4 Utilize Complete Street cross section revisions whenever corridor reconstruction or reconfiguring occurs.

3.1.5 Develop and adopt a Complete Streets Design Manual that includes a process for project prioritization and guides public and private improvements–both new construction and retrofits.

Objective 3.2

Construct corridors to demonstrate how streets contribute to the urban environment.

Actions to support objective 3.2:

3.2.1 Pursue and construct multi-modal enhancements using a context sensitive solutions process.

Transportation Goal 4

Develop a modern, choice-rider transit system.

Objective 4.1

Build and fund a robust transit network that serves as a backbone to future system expansion.

Actions to support objective 4.1:

4.1.1 Develop an ADA Transition Plan for correction of deficient transit stops.

4.1.2 Improve access from the airport to key areas of the city, such as downtown, hotels, convention centers, universities, and bus stations.

Objective 4.2

Identify high capacity transit corridors for future implementation.

Actions to support objective 4.2:

4.2.1 Develop short-term signature lines that are expected to attract a high percentage of choice-riders – such as Florida Boulevard, Nicholson Drive and Plank Road.

4.2.2 Develop medium-term signature line strategies that further develop the choice-rider system along other corridors.

4.2.3 Pursue funding opportunities for system enhancement.

4.2.4 Coordinate with CRPC and other relevant agencies to pursue regional passenger rail service.

Transportation Goal 5

Enhance the bicycle and pedestrian network throughout the Parish.

Objective 5.1

Develop a network of bicycle and pedestrian facilities.

Actions to support objective 5.1:

5.1.1 Utilize the Complete Street Technical Committee and Advisory Committee to review the bike and pedestrian master plan being developed by LADOTD. Coordinate with the BREC Trails Master Plan and other trail network plans to create a multi-modal path system.

5.1.2 Require bicycle and pedestrian facilities on new and existing developments.

5.1.3 Continue coordination with the Baton Rouge Area Foundation to implement a Bike Share Program.

5.1.4 Maintain facilities that can be used for bicycle access, such as wide shoulders.

Objective 5.2

Improve the pedestrian environment along major arterial corridors.

Actions to support objective 5.2:

5.2.1 Ensure that continued development of sidewalk and crosswalk improvements occur with other road improvements where opportunities to enhance the pedestrian environment exist.

5.2.2 Review and update the City's current sidewalk maintenance policy to include developing a dedicated funding source for sidewalk maintenance and enhancement, and/or the use of local improvement districts to fund streetscape improvements–including sidewalks, street furniture, trees, and other amenities.

5.2.3 Develop an ADA Transition Plan for correction of deficient sidewalks and crosswalks.

5.2.4 Develop a standard to apply midblock crosswalks in long block sections.

Objective 5.3

Increase public access to information on the bicycle and pedestrian network.

Actions to support objective 5.3:

5.3.1 Develop a mobile application providing access to bicycle and pedestrian facilities.

Transportation Goal 6

Improve coordination and communication between agencies.

Objective 6.1

City-Parish departments and outside agencies collaborate in support of the Transportation Element and recommendations.

Actions to support objective 6.1:

6.1.1 Coordinate multi-modal planning of transportation improvements between the City-Parish, Airport Commission, CATS, Greater BR Port Commission, railroads, CRPC, LADOTD.

6.1.2 Utilize the Complete Streets Technical and Advisory Committees in coordination of non-roadway transportation related projects.

Objective 6.2

Coordinate transportation plans with the master plans of the port and airport.

Actions to support objective 6.3:

6.2.1 Support the 2016 Master Plan Update of the Baton Rouge Metropolitan Airport.

6.2.2 Support the Port of Greater Baton Rouge by way of maritime and roadway infrastructure investment.

Transportation Goal 7

Reduce vehicular emissions.

Objective 7.1

Establish evaluation tools and programs to reduce vehicular emissions.

Actions to support objective 7.1:

7.1.1 Evaluate the performance of existing programs and alternatives for promoting ride-sharing, van pooling, and use of public transportation to identify and recommend improvements.